# STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS AND MINING

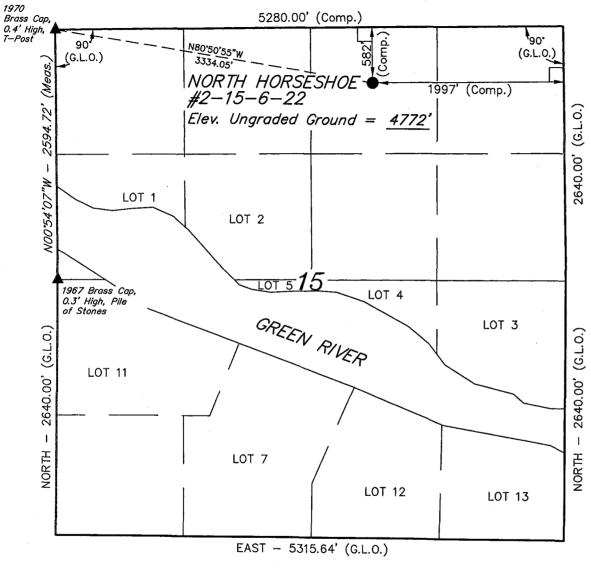
AMENDED REPORT (highlight changes)

DIV. OF OIL, GAS & MINING

	<u> </u>	APPLICATI	ON FOR I	PERMIT TO	DRILL			5. MINERAL LE ML-47969		6. surface: State
1A. TYPE OF WORK: DRILL Z REENTER DEEPEN						7. IF INDIAN, AI	LLOTTEE OR 1	RIBE NAME:		
B. TYPE OF WE	LL: OIL	GAS 🗹 O	THER	SING	GLE ZONE [	MULTIPLE ZONI	E 🗾	8. UNIT or CA A	GREEMENT	IAME:
2. NAME OF OPE		on Company						9. WELL NAME		
3. ADDRESS OF		on Company	7.	<del></del>		PHONE NUMBER:		10. FIELD AND		2-15-6-22
		20 CITY Housto	n stat	E TX ZIP 770	002	(713) 830-6800		Undesign		^
	WELL (FOOTAGE	•		3820¥		0 30504		11. QTR/QTR, S MERIDIAN:	SECTION, TOV	VNSHIP, RANGE,
AT SURFACE:	582' FNL 8	k 1997' FEL		625964	<i>r</i> .		٠	NWNE	15 6S	22E
AT PROPOSED	PRODUCING ZOI	NE: same as	above 99	1	-10	0.305064 9.425327	'			
14. DISTANCE IN	MILES AND DIRE	CTION FROM NEAR	EST TOWN OR PO	ST OFFICE:				12. COUNTY:		13. STATE:
13.9 mile	s south of ${f V}$	/ernal, UT						Uintah		HATU
15. DISTANCE TO	NEAREST PROP	PERTY OR LEASE LIN	NE (FEET)	16. NUMBER OF	ACRES IN LEA	SE:	17. NI	IMBER OF ACRE	S ASSIGNED	TO THIS WELL:
582'						2,240				40
18. DISTANCE TO APPLIED FOR	O NEAREST WELL R) ON THIS LEASE	. (DRILLING, COMPLI : (FEET)	ETED, OR	19. PROPOSED	DEPTH:		20. BC	OND DESCRIPTION	ON:	
1,800'						9,374	<u> </u>	4155044		
		R DF, RT, GR, ETC.)	:	22. APPROXIMA		K WILL START:		TIMATED DURA	TION:	
4,772 GR			<del></del>	11/15/20	005		30	Days		
24.	<b>T</b>		PROPOS	ED CASING AI	ND CEMEN	TING PROGRAM			-	
SIZE OF HOLE		GRADE, AND WEIGH	IT PER FOOT	SETTING DEPTH		CEMENT TYPE, QUA	ANTITY,	YIELD, AND SLU	IRRY WEIGHT	
11"	8 5/8"	J-55	36#	2,000	PREMIU	M LITE II	250	SKS	3.38 CF	1`
		W-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1			CLASS "	G"	329	SKS	1.2 CF	15.6 PPG
					Calcium (	Chloride	200	SKS	1.10 CF	15.6 PPG
7 7/8"	4 1/2"	N-80	11.6#	9,401	PREMIU	M LITE II	200	SKS	3.3 CF	11.0 PPG
					CLASS "	3"	400	SKS	1.56 CF	14.3 PPG
						at and the second secon				
25.				ATTA	CHMENTS					
VERIFY THE FOL	LOWING ARE AT	TACHED IN ACCORD	ANCE WITH THE L	ITAH OIL AND GAS C	ONSERVATION	GENERAL RULES:		CON	IFIDE	NTIAI
<b>✓</b> WELL PL	AT OR MAP PREP	PARED BY LICENSED	SURVEYOR OR E	NGINEER	<b>☑</b> ∞	MPLETE DRILLING PLAN				· · · · · · · · · · · · · · · · · · ·
<b>V</b> EVIDENC	CE OF DIVISION O	F WATER RIGHTS A	PPROVAL FOR US	E OF WATER	☐ FC	RM 5, IF OPERATOR IS PE	RSON C	R COMPANY OT	THER THAN TH	E LEASE OWNER
	Willam	n A. Ryan				<sub>e</sub> Agent				
NAME (PLEASE	PRINT)		)		TITL	EAgont	<del></del>			<del></del>
SIGNATURE	Nillian	wa Typo			DAT	E 11-14-06				
(This space for Sta	te use only)	J				- Aligna				
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	11.	D NIO DE	n cal					NOV 1	7 2005	
API NUMBER AS	SIGNED:	3-047-37	クリノ		Gas and APPROVAL	-		.101	. 2007	

(11/2001)

# T6S, R22E, S.L.B.&M.



#### BASIS OF BEARINGS

#### LEGEND:

BASIS OF BEARINGS IS A G.P.S. OBSERVATION.

 $= 90^{\circ} \text{ SYMBOL}$ 

= PROPOSED WELL HEAD.

= SECTION CORNERS LOCATED.

(AUTONOMOUS NAD 83) LATITUDE = 40'18'15.57" (40.304325) LONGITUDE = 109'25'34.74" (109.426317)

(AUTONOMOUS NAD 27)

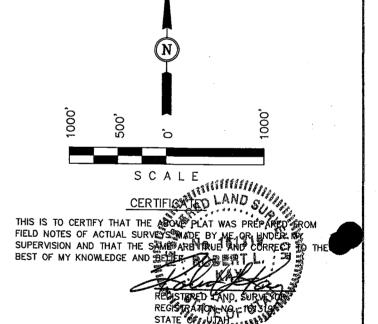
LATITUDE = 40'18'15.70" (40.304361) LONGITUDE = 109'25'32.27" (109.425631)

#### THE HOUSTON EXPLORATION COMPANY

Well location, NORTH HORSESHOE #2-15-6-22, located as shown in the NW 1/4 NE 1/4 of Section 15, T6S, R22E, S.L.B.&M. Uintah County, Utah.

#### BASIS OF ELEVATION

SPOT ELEVATION AT A HILLTOP LOCATED IN THE SW 1/4 OF SECTION 11, T6S, R22E, S.L.B.&M. TAKEN FROM THE RASMUSSEN HOLLOW QUADRANGLE, UTAH, UINTAH COUNTY, 7.5 MINUTE SERIES (TOPOGRAPHICAL MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED AS BEING 4993 FEET.



# UINTAH ENGINEERING & LAND SURVEYING 85 SOUTH 200 EAST - VERNAL, UTAH 84078 (435) 789-1017

(100	0) 100 1011		
SCALE 1" = 1000'	DATE SURVEYED: DATE DRAWN: 08-03-05 08-11-05		
PARTY N.H. D.M. L.K.	REFERENCES G.L.O. PLAT		
WEATHER HOT	FILE THE HOUSTON EXPLORATION COMPANY		

#### Ten Point Plan

#### The Houston Exploration Company

#### North Horseshoe 2-15-6-22

Surface Location NW 1/4 NE 1/4, Section 15, T. 6S., R. 22E.

#### 1. Surface Formation

Green River

#### 2. Estimated Formation Tops and Datum:

Formation	Depth	Datum
GR	Surface	4,772'
KB	+12'	4,784'
Green River	3,674'	+1,110'
Wasatch	6,774	-1,990'
Mesaverda	9,374'	-4,590'TD

A 11" hole will be drilled to 2,000' +/-. The hole depth will depend on the depth that the Birds Nest Zone is encountered. The hole will be drilled 400' beyond the top of the Birds Nest.

#### 3. Producing Formation Depth:

Formation objective includes the Green River, Wasatch, Mesaverde and its submembers.

Off set well information

Permitted/Drilled:

North Horseshoe #16-9-6-22 North Horseshoe #4-15-6-22 North Horseshoe #14-10-6-22

Abandoned Wells:

N#2

#### 4. Proposed Casing:

Hole	Casing			Coupling	Casing	
<u>Size</u>	<u>Size</u>	Weight/FT	<u>Grade</u>	& Tread	Depth	New/Used
11	8 5/8	36#	J-55	STC	2000	NEW
7 7/8	$4\frac{1}{2}$	11.6#	N-80	LTC	T.D.	NEW

### **Cement Program:**

## The Surface Casing will be cemented to the Surface as follows:

Lead:	Casing <u>Size</u>	Cement Type	Cement Amounts	Cement <u>Yield</u>	Cement Weight
Delia.	8 5/8	Premium Lite II .05#/sk Static Free .25#/sk Cello Flake 5#/sk KOL Seal .002 gps FP-6L 10% Bentonite .5% Sodium Metasil 3% Potassium Chlor		3.38ft³/sk	11.0 ppg
Tail:					
	8 5/8	Class "G" 2% Calcium Chlorid .25#/sk Cello Flake	329 sks. +/- le	1.2ft³/sk	15.6 ppg
Top Jo	b:				
	8 5/8	4% Calcium Chloride .25#/sk Cello Flake	e 200 sks. +/	/-1.10ft³/sk	15.6 ppg

#### Production casing will be cemented to 2,500' or higher as follows:

	Casing <u>Size</u>	Cement <u>Type</u>	Cement Amounts	Cement <u>Yield</u>	Cement <u>Weight</u>
Lead:					
	4 1/2	Premium Lite II .25#/sk Cello Flake .05#/sk Static Free 5#/sk Kol Seal 3% Potassium Chlor .055 gps FP-6L 10% Bentonite .5 Sodium Metasilic		3.3ft³/sk	11.0 ppg
Tail:					
	4 1/2	Class "G" .05% Static Free 2 Sodium Chloride .1% R-3 2% Bentonite	400 sks +/-	1.56ft <sup>3</sup> /sk	14.3 ppg

#### 5. BOP and Pressure Containment Data:

The anticipated bottom hole pressure will be less than 3000 psi.

A 3000-psi WP BOP system as described in the BOP and Pressure Containment Data (attached) will be installed and maintained from the 8 5/8" surface casing. The BOP system including the casing will be pressure tested to minimum standards set forth in "On Shore Order #2". The BOP will be mechanically checked daily during the drilling operation.

#### 6. Mud Program:

Interval	Mud weight lbs./gal.	Viscosity Sec./OT.	Fluid Loss MI/30 Mins.	Mud Type
0-2000	Air/Clear Water	30	No Control	Water/Gel
2000-T.D.	8.4-12.0		8-10	Water/Gel

#### 7. Auxiliary Equipment

Upper Kelly cock, full opening stabbing valve, 2 ½" choke manifold and pit level indicator.

#### 8. Testing, Coring, Sampling and Logging:

a)	Test:	None are anticipated.			
b)	Coring:	There is the possibility of sidewall coring.			
c)	Sampling:	Every 10' from 2000' to T.D	) <b>,</b>		
d)	Logging:	Type DLL/SFL W/GR and SP FDC/CNL W/GR and CAL	Interval T.D. to Surf. Csg T.D. to Surf. Csg		

#### 9. Abnormalities (including sour gas):

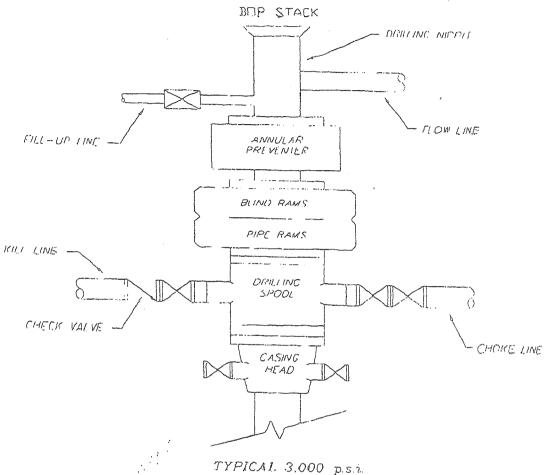
No abnormal pressures, temperatures or other hazards are anticipated. Oil and gas shows are anticipated in the Wasatch Formation. Other wells drilled in the area have not encountered over pressured zones or H2S.

#### 10. Drilling Schedule:

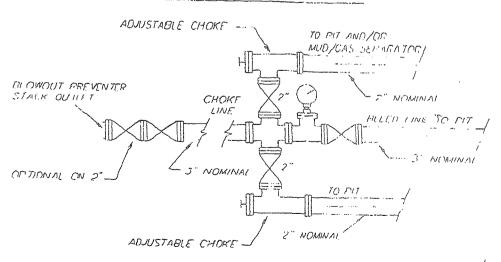
The anticipated starting date is	<u>1/1</u> /2005	Duration of operations is
expected to be 30 days.		

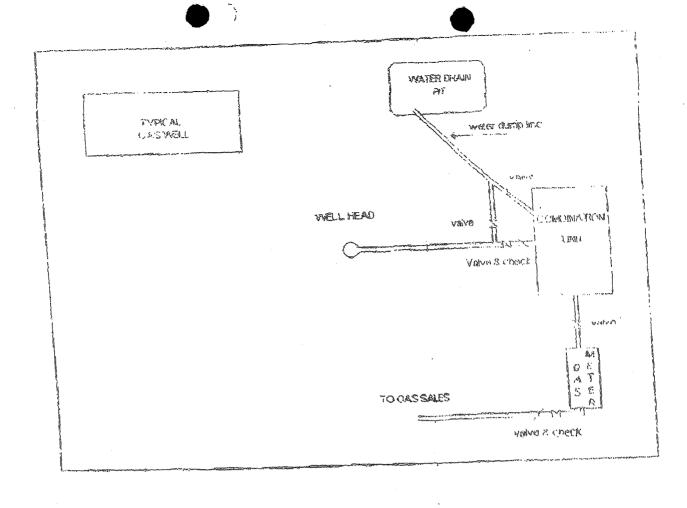
## THE HOUSTON EXPLORATION COMPANY

# TYPICAL 3,000 p.s.z. BLOWOUT PREVENTER SCHEMATIC



#### TYPICAL 3.000 p.s.i. CHOKE MANIFOLD SCHEMATIC





# THE HOUSTON EXPLORATION COMPANY 13 POINT SURFACE USE PLAN FOR WELL

**NORTH HORSESHOE 2-15-6-22** 

LOCATED IN NW 1/4 NE 1/4

**SECTION 15, T. 6S, R22E, S.L.B.&M.** 

**UINTAH COUNTY, UTAH** 

**LEASE NUMBER: ML-47969** 

**SURFACE OWNERSHIP: STATE** 

#### 1. Existing Roads:

To reach The Houston Exploration Co. well North Horseshoe 2-15-6-22 in Section 15, T6S, R 22E, Starting in Vernal, Utah.

Proceed in an easterly, then southerly direction from Vernal. Utah along U.S. Highway 40 approximately 3.9 miles to the junction of this road and State Highway 45; exit right and proceed in a southerly, then southeasterly direction approximately 5.2 miles on State Highway 45 to the junction of this road and an existing road to the southeast, turn left and proceed in a southeasterly, then southerly direction approximately 4.7 miles to the beginning of the proposed access to the east; follow road flags in a easterly direction approximately 0.1 miles to the proposed location.

# Total distance from Vernal, Utah to the proposed well location is approximately 13.9 miles.

All existing roads to the proposed location are State of Utah, BLM maintained or County Class D roads. Please see the attached map for additional details.

#### 2. Planned access road

The proposed access road will be approximately 528' +/- of new construction on lease. The road will be graded once per year minimum and maintained.

A) Approximate length 528 ft B) Right of Way width 30 ft C) Running surface 18 ft D) Surface material Native soil E) Maximum grade 5% F) Fence crossing None G) Culvert None H) Turnouts None I) Major cuts and fills None J) Road Flagged Yes K) Access road surface ownership State

L) All new construction on lease Yes

**M)** Pipe line crossing None Please see the attached location plat for additional details.

# An off lease right-of-way will not be required.

All surface disturbances for the road and location will be within the lease boundary.

3. Location of existing wells

The following wells are located within
a one-mile radius of the location site.

A) Producing well None B) Water well None C) Abandoned well N #2 D) Temp. abandoned well None E) Disposal well None F) Drilling /Permitted well North Horseshoe 2-15-6-22 North Horseshoe 14-10-6-22 North Horseshoe 16-9-6-22 G) Shut in wells None H) Injection well None I) Monitoring or observation well

Please see the attached map for additional details.

None

4. Location of tank batteries, production facilities and production gathering service lines.

All production facilities are to be contained within the proposed location site. Please see the attached plat plan for a typical gas well separator installation and well site piping.

All permanent (on site for more than six months or longer) structures constructed or installed will be painted an **Carlsbad Canyon** color. Facilities required to comply with O.S.H.A. (Occupational Safety and Health Act) will be excluded. The required paint color is **Carlsbad Canyon**.

All tanks will be surrounded by a dike of sufficient capacity to contain the storage capacity of the largest tank in the battery. The integrity of the dike will be maintained.

The operator will adhere to all site security guidelines and regulation identified in 43 cfr 3126.7.

All off lease storage, off lease measurement, commingling on lease or off lease, of production, will have prior written approval form the authorized officer.

If the well is capable of economic production a surface gas line will be required.

Approximately 1,802' +/- of 3" steel surface gas gathering line would be constructed on State Lands. The line will tie into the proposed pipeline in Section 10,

T6S, R22E. The pipeline would be strung and boomed to the northwest of the location. The pipeline may be buried as determined by the Authorized Officer at the onsite.

An off lease right-of-way will not be required.

Please see the attached location diagrams for pipeline location.

The gas meter run will be located within 500' of the wellhead. The gas line will be buried or anchored down from the wellhead to the meter. Meter runs will be housed and/or fenced.

The gas meter will be calibrated and the tank strapped in place prior to any deliveries. Tests for meter accuracy will be conducted monthly for the first three months on new meter installations and at least quarterly thereafter. The authorized officer will be provided with a date and time for the initial meter calibration and all future meterproving schedules. A copy of the meter calibration report will be submitted to the BLM's Vernal District office and State of Utah. Division of Oil, Gas, and Mining. All measurement facilities will conform to API (American Petroleum Institute) and AGA (American Gas Association) standards for gas and liquid hydrocarbon measurement.

#### 5. Location and type of water supply

Water for drilling and cementing will come from The Green River in Permit #T-76073.

#### 6. Source of construction materials

All construction material for this location site and access road shall be borrow material accumulated during construction of the location site and access road. Additional road gravel or pit lining material will be obtained from private resources.

#### 7. Methods for handling waste disposal

#### A) Pit construction and liners:

The reserve pit will be approximately **12 ft**. deep and most of the depth shall be below the surface of the existing ground Please see the attached plat for details.

The reserve pit will be lined.

The reserve pit will be used to store water for drilling. A semi-closed system will be used to drill the well. All fresh water for drilling will come from a frac tank placed on location and from the rig tank. The pit will be used to hold non-flammable materials such as cuttings, salt, drilling fluids, chemicals, produced fluids, etc.

#### B) Produced fluids:

Produced water will be confined to the reserve pit, or if deemed necessary, a storage tank for a period not to exceed 90 days after initial production. During the 90-day period an application for approval for permanent disposal method and location will be submitted to the authorized officer. Evaporation may be used instead of trucking to facilitate closing and reclamation of the reserve pit. A pumping system would be used for evaporation.

#### C) Garbage:

A trash cage fabricated from expanded metal will be used to hold trash on location and will be removed to an authorized landfill location.

#### D) Sewage:

A portable chemical toilet will be supplied for human waste.

#### E) Site clean-up:

After the rig is moved off the location the well site area will be cleaned and all refuse removed.

#### 8. Ancillary facilities

There are no ancillary facilities planned at this time and none are foreseen for the future.

#### 9. Well-site layout

Location dimensions are as follows:

A) Pad length	345 ft.
B) Pad width	245 ft.
C) Pit depth	12 ft.
D) Pit length	150 ft.
E) Pit width	75 ft.
F) Max cut	13.2 ft.
G) Max fill	6.6 ft.
H) Total cut yds.	5,280 cu yds

I) Pit location South sideJ) Top soil location

East end

K) Access road location

West end

L) Flare Pit

Please see the attached location diagram for additional details.

All pits will be fenced according to the following minimum standards:

- A) Thirty nine inch net wire shall be used with at least one strand of wire on top of the net wire. Barbed wire is not necessary if pipe or some type of reinforcement rod is attached to the top of the entire fence.
- B) The net wire shall be no more than 2 inches above the ground. The barbed wire shall be 3 inches above the net wire. Total height of the fence shall be at leas 42 inches.
- C) Corner posts shall be cemented and/or braced in such a manner to keep the fence tight at all times.

- D) Standard steel, wood or pipe posts shall be used between the corner braces. Maximum distance between any two posts shall be no greater than 16 ft.
- E) All wire shall be stretched by using a stretching device before it is attached to the corner posts.
- 10. Plans for restoration of the surface

Prior to construction of the location, the top 6 inches of soil material will be stripped off the location and the pit area. The topsoil removed and piled will amount to approximately 1,560 cubic yards of material. Topsoil will be stockpiled in one distinct pile. Placement of the topsoil is noted on the attached location plat. The topsoil pile from the location will be seeded as soon as the soil is stock piled with the seed mix listed. When all drilling and completion activities have been completed and the pit back-filled the topsoil from the pit area will be spread on the pit area. The pit area will be seeded when the soil has been spread. The unused portion of the location (the area outside the dead men) will be re-contoured.

The dirt contractor will be provided with an approved copy of the surface use plan prior to construction activities.

Changes to the drainage during the construction activities shall be restored to its original line of flow or as near as possible when the pit is back-filled

All disturbed areas will be recontoured to the approximate natural contours. Prior to back filling the pit the fences around the reserve pit will be removed.

The reserve pit will be reclaimed within 90 days of well completion. If the reserve pit has not dried sufficiently to allow back filling, an extension on the time requirement for back filling the pit will be requested. Once reclamation activities have begun, they shall be completed within 30 days.

After the reserve pit has been reclaimed, no depressions in the soil covering the reserve pit will be allowed. The objective is to keep seasonal rainfall and run off from seeping into the soil used to cover the reserve pit. Diversion ditches and water bars will be used to divert the run off as needed.

When restoration activities have been completed, the location site and new access road cuts and shoulders shall be reseeded. Prior to reseeding, all disturbed areas will be scarified and left with a rough surface.

#### A) Seeding dates:

Seed will be spread when topsoil is stock piled and when reclamation work is performed.

The seed mix and quantity list will be used whether the seed is broadcast or drilled.

#### B) Seed Mix

To be determined by the Authorized Officer.

#### 11. Surface ownership:

Access road	State
Location	State
Pipe line	State

#### 12. Other information:

#### A) Vegetation

The vegetation coverage is Slight. The majority of the existing vegetation consists of non-native species. Rabbit brush, bitter brush, and Indian Rice grass and Sagebrush are also found on the location.

#### B) Dwellings:

There are no dwelling or other facilities within a one-mile radius of the location.

#### C) Archeology:

The location has been surveyed. A copy of that survey will be forwarded to your office.

If, during operations, any archaeological or historical sites, or any objects of antiquity (subject to the antiquities act of June 8, 1906) are discovered, all operations, which would affect such sites, will be suspended and the discovery reported

promptly to the surface management agency.

#### D) Water:

The nearest water is the Green River located 2,550' to the South.

#### E) Chemicals:

No pesticides, herbicides or other possible hazardous chemicals will be used without prior application.

#### F) Notification:

- a) Location Construction
  At least forty eight (48)
  hours prior to
  construction of location
  and access roads.
- b) Location completion Prior to moving on the drilling rig.
- c) Spud notice At least twenty-four (24) hours prior to spudding the well.
- d) Casing string and cementing
  At least twenty-four (24) hours prior to running casing and cementing all casing strings.
- e) BOP and related equipment tests At least twenty-four (24) hours prior to initial pressure tests.
- f) First production notice Within five (5) business days after the new well begins, or production resumes after well has

been off production for more than 90 days.

#### G) Flare pit:

The flare pit will be located in **corner C** of the reserve pit out side the pit fences and 100 feet from the bore hole on the east side of the location. All fluids will be removed from the pit within 48 hours of occurrence.

# 13. Lessees or Operator's representative and certification

#### A) Representative

William A. Ryan Rocky Mountain Consulting 290 S 800 E Vernal, UT 84078

Office 435-789-0968 Fax 435-789-0970 Cellular 435-828-0968

All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, onshore oil and gas orders, and any applicable notices to lessees. The operator is fully responsible for the actions of his subcontractors. A copy of these conditions will be furnished to the field representative to ensure compliance.

This drilling permit will be valid for a period of one year from the date of approval.

After permit termination, a new

application will be filed for approval for any future operations.

#### B) Certification:

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill-site and access route that I am familiar with the conditions which presently exist, that the statements made in this plan are, to the best of my knowledge and belief, true and correct, and that the work associated with the operation proposed herein will be preformed by The Houston **Exploration Company and its** contractors and subcontractors in conformity with this plan and terms and conditions with this plan and the terms and conditions under which it is approved.

William A. Ryan, Agent Rocky Mountain Consulting

**Onsite Dates:** 

# Statement of use of Hazardous Materials

No chemical(s) from the EPA's consolidated list of Chemicals subject to Reporting under Title III of the Superfund Amendments and Reauthorization, Act (SARA) of 1986 will be used, produced, transported, stored, disposed, or associated with the proposed action. No transported, disposed, or associated with the proposed action.

If you require additional information please contact:

William A Ryan
Agent for The Houston Exploration Company
Rocky Mountain Consulting
290 S 800 E
Vernal, UT 84078

435-789-0968 Office 435-828-0968 Cell 435-789-0970 Fax

## THE HOUSTON EXPLORATION COMPANY

# NORTH HORSESHOE #2-15-6-22

LOCATED IN UINTAH COUNTY, UTAH SECTION 15, T6S, R22E, S.L.B.&M.

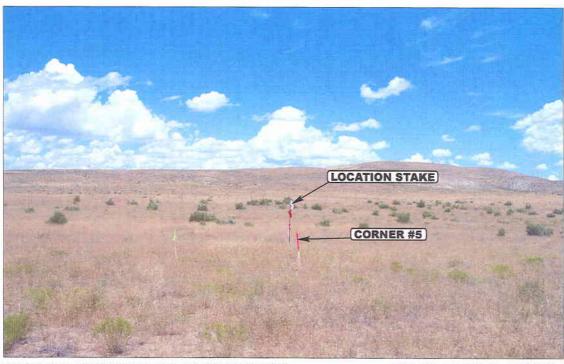


PHOTO: VIEW FROM CORNER #5 TO LOCATION STAKE

CAMERA ANGLE: NORTHEASTERLY



PHOTO: VIEW FROM BEGINNING OF PROPOSED ACCESS

CAMERA ANGLE: EASTERLY

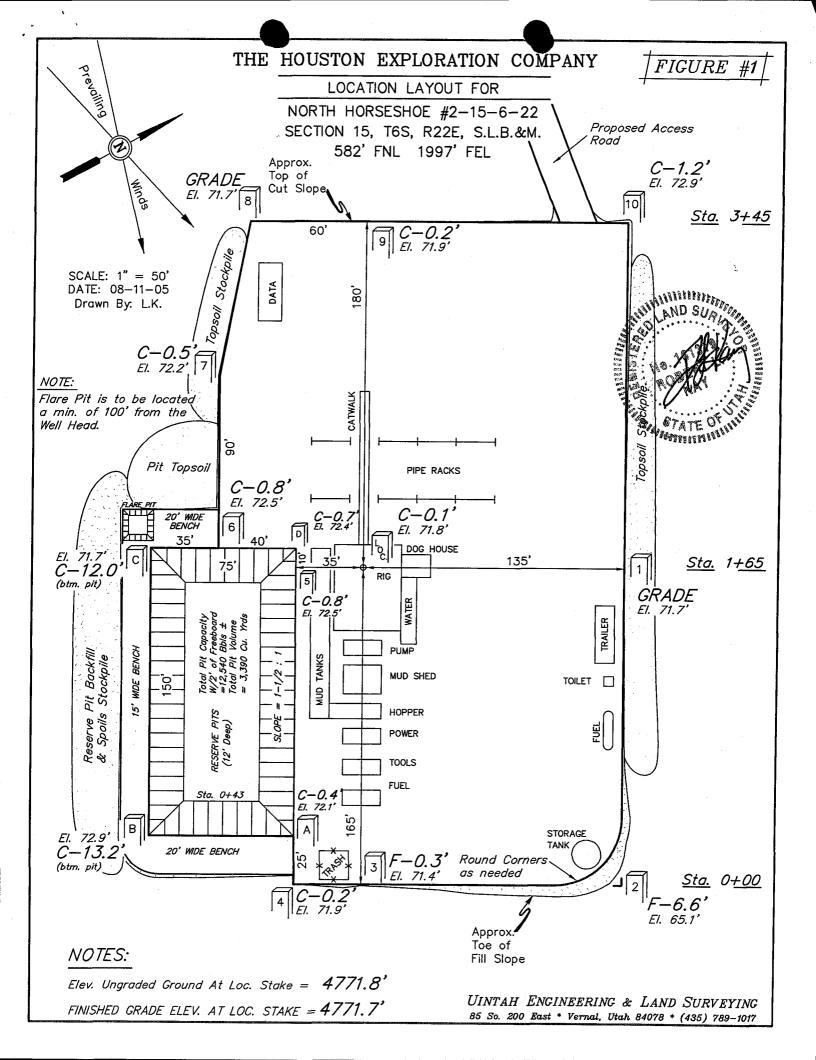


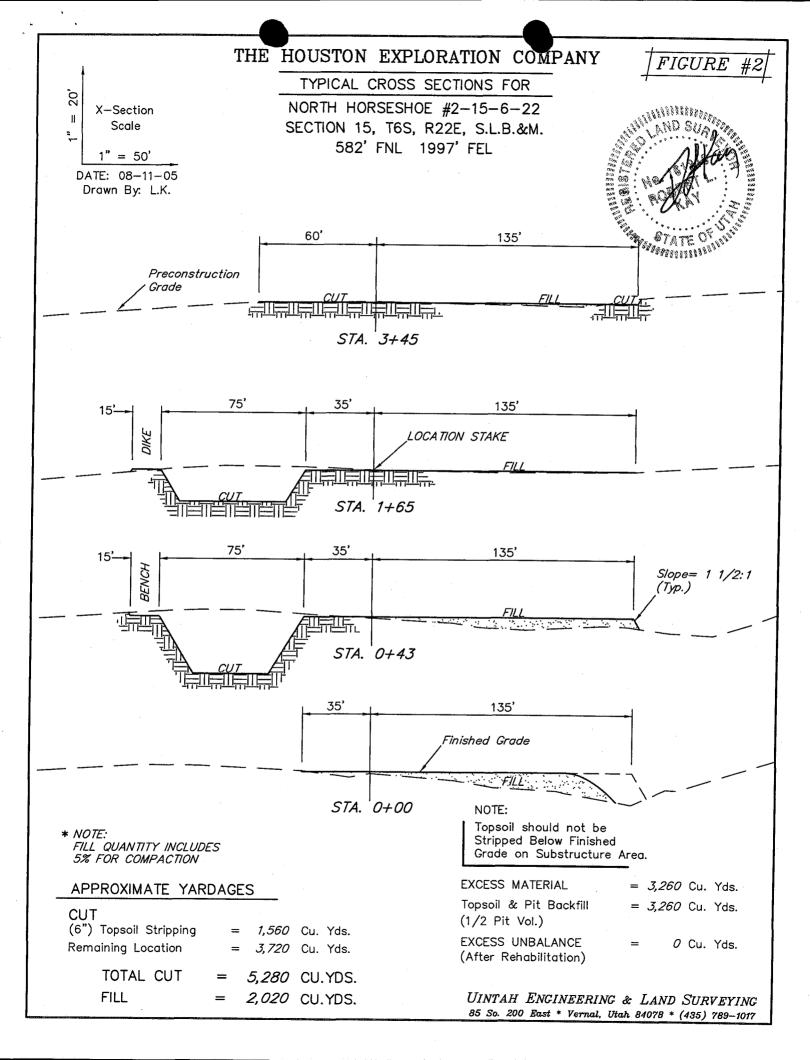
Uintah Engineering & Land Surveying S South 200 East Vernal, Utah 84078 435-789-1017 uels@uelsinc.com

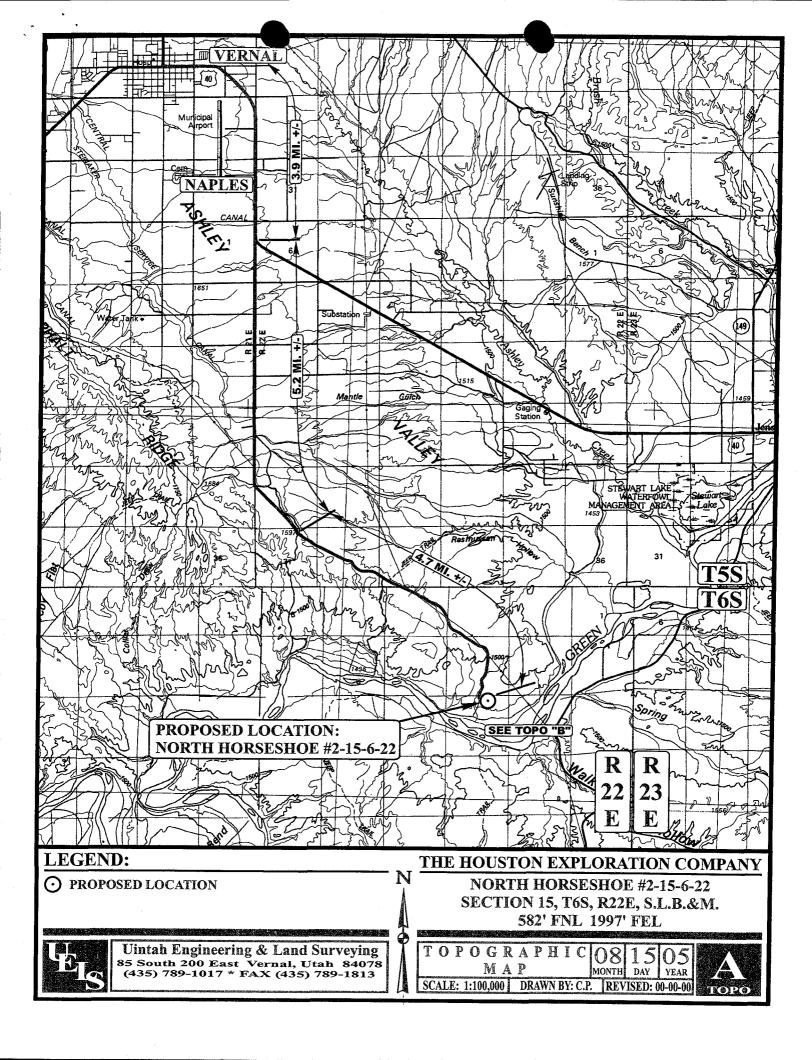
LOCATION PHOTOS

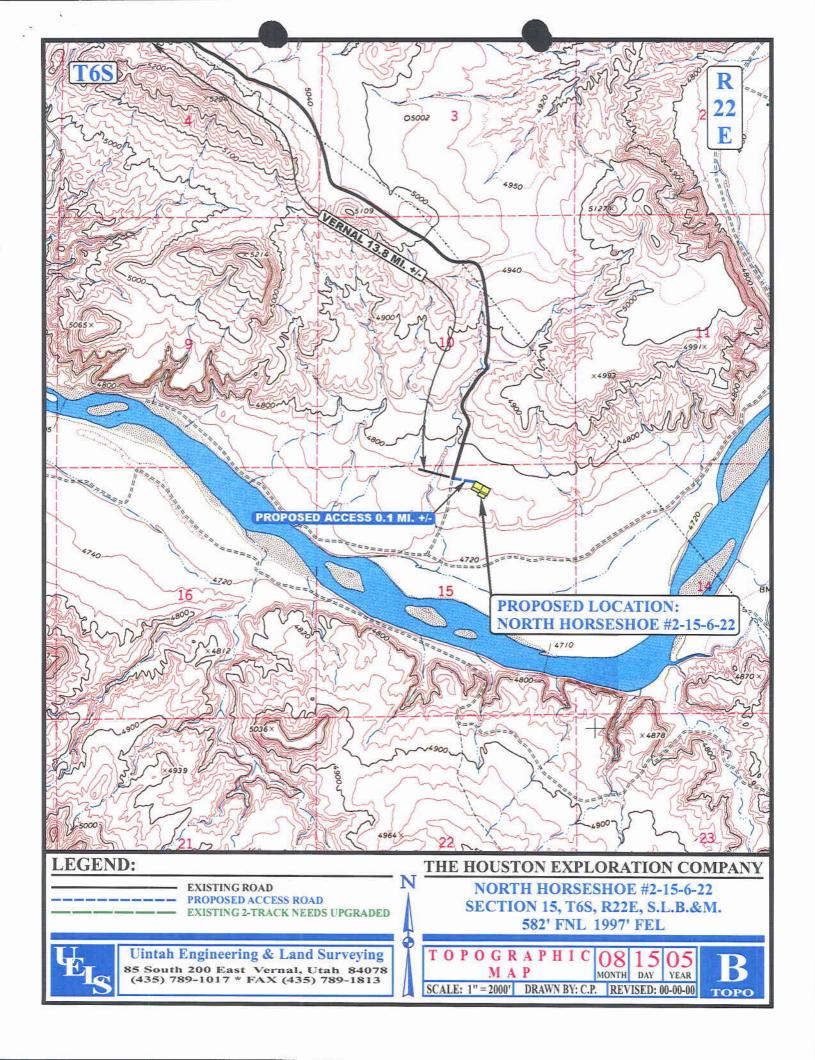
MONTH DAY YEAR TAKEN BY: N.H. DRAWN BY: C.P. REVISED: 00-00-00

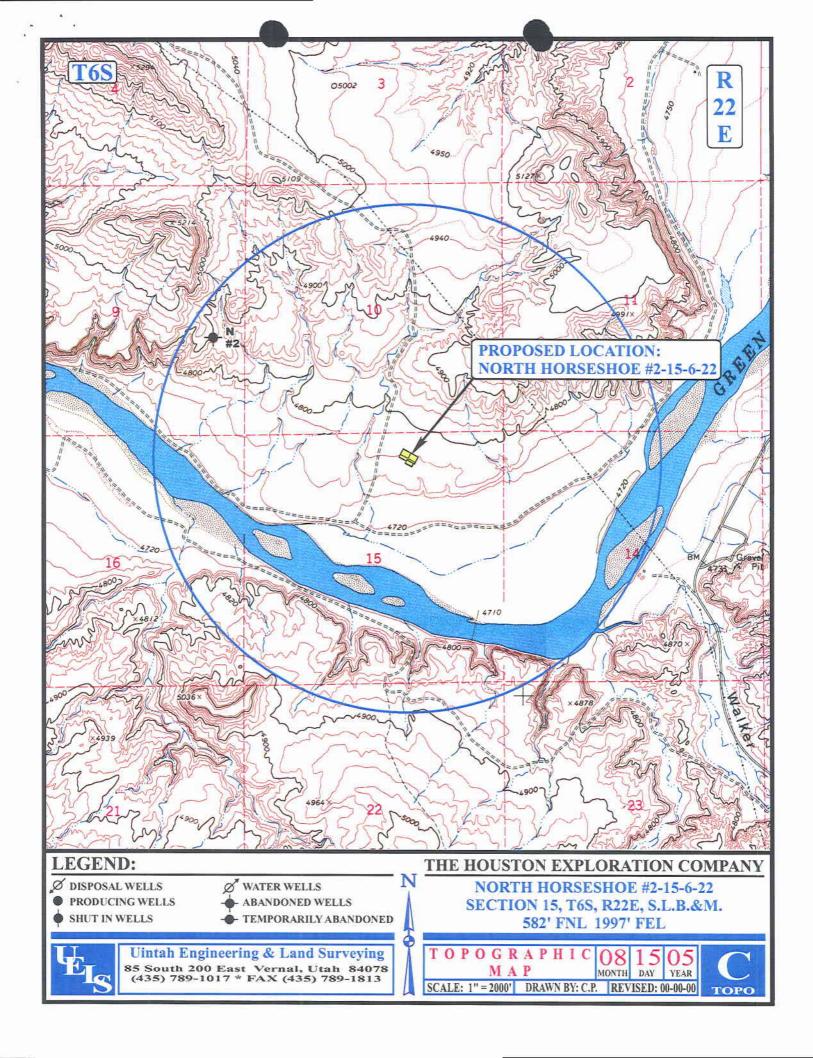
**РНОТО** 

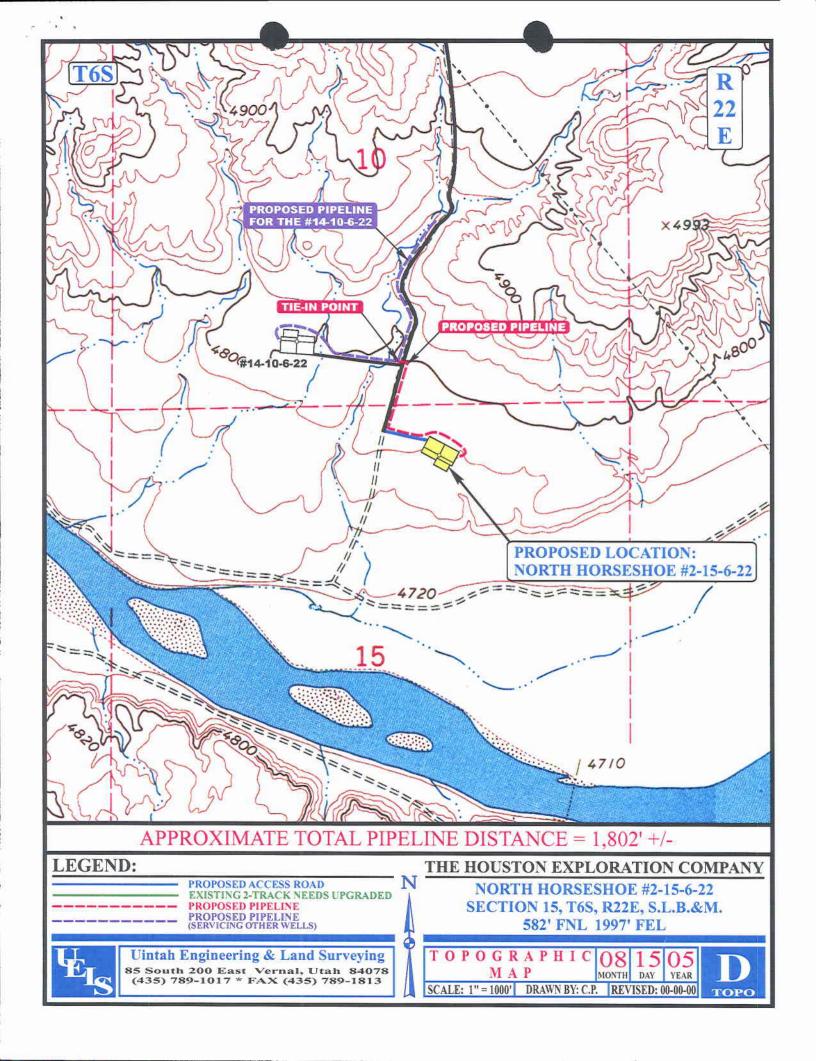














# STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS AND MINING

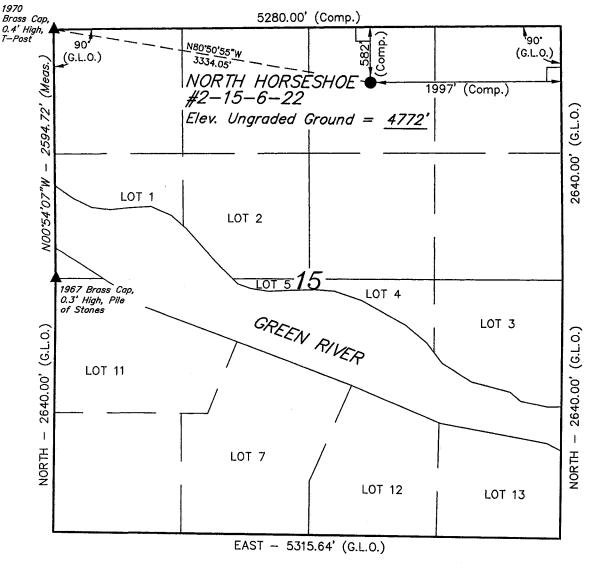
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AMENDED REPORT [] (highlight changes)

	AP	PLICA	TION FOR	PERMIT TO	DRILL		5. MINERAL LEASE ML-47969	NO:	6. SURFACE: State
1A. TYPE OF WORK: DRILL V REENTER DEEPEN							7. IF INDIAN, ALLOTTEE OR TRIBE NAME:		
B. TYPE OF WE	rr: OIL 🗌 e	AS 🗹	OTHER	SIN	GLE ZONE MULTIPLE ZON	vE ☑	8. UNIT or CA AGRE	EMENTN	AME:
2. NAME OF OPE		The state of the s			THE STATE OF THE STATE OF THE PARTY OF THE STATE OF THE S		9. WELL NAME and	NUMBER:	
and the second s	on Exploration	Compar	ny				North Horse	shoe :	2-15-6-22
	iana Suite 20	OITY Hous	ston sr	ATE TX ZIP 77	002 (713) 830-6800		10. FIELD AND POO Undesignati		V .
	WELL (FOOTAGES)		102	33820¥	40 30501	(-	11. QTR/QTR, SECT		
AT SURFACE:	582' FNL & 1	997' FEI		4625964	(0,00306	φ	NWNE 15	6S	22E
AT PROPOSED	PRODUCING ZONE:	same a	is above	462-147	40.30506	7			
14. DISTANCE IN	MILES AND DIRECTION	ON FROM NE	AREST TOWN OR P	OST OFFICE:			12. COUNTY:		13. STATE:
13.9 mile	s south of Ver	nal, UT				İ	Uintah		HATU
	NEAREST PROPERT	TY OR LEASE	LINE (FEET)	16. NUMBER O	16. NUMBER OF ACRES IN LEASE: 17. N		MBER OF ACRES AS	SIGNED	TO THIS WELL:
582'	·				2,240				40
18. DISTANCE TO APPLIED FOR	O NEAREST WELL (DF R) ON THIS LEASE (FE	RILLING, CON ET)	IPLETED, OR	19. PROPOSED	19. PROPOSED DEPTH: 20. B		BOND DESCRIPTION:		
1,800'					9,374	104	04155044		
	(SHOW WHETHER D	F, RT, GR, ET	C.):	i			ESTIMATED DURATION:		
4,772 GR			11/15/20	11/15/2005 30			0 Days		
24.			PROPO	SED CASING A	ND CEMENTING PROGRAM				
SIZE OF HOLE	CASING SIZE, GRA	ADE, AND WE	IGHT PER FOOT	SETTING DEPTH	CEMENT TYPE, QU	JANTITY, Y	IELD, AND SLURRY	WEIGHT	
11"	8 5/8"	J-55	36#	2,000	PREMIUM LITE II	250	SKS 3.	38 CF	1
					CLASS "G"	329	SKS 1	.2 CF	15.6 PPG
					Calcium Chloride	200	SKS 1.	10 CF	15.6 PPG
7 7/8"	4 1/2"	N-80	11.6#	9,401	PREMIUM LITE II	200	SKS 3	.3 CF	11.0 PPG
					CLASS "G"	400	SKS 1.	56 CF	14.3 PPG
				<u></u>			· · · · · · · · · · · · · · · · · · ·		
25.	<u> </u>			ATTA	CHMENTS			· /i	
VERIFY THE FOL	LOWING ARE ATTAC	HED IN ACCO	PRDANCE WITH THE	<del></del>		····	COVIE	וחרו	ITIAI
VERIFY THE FOLLOWING ARE ATTACHED IN ACCORDANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES:						CUNF	IDEI	VIIAL	
					COMPLETE DRILLING PLAN				
<b>✓</b> EVIDENO	CE OF DIVISION OF W	ATER RIGHT:	S APPROVAL FOR U	SE OF WATER	FORM 5, IF OPERATOR IS PE	ERSON OF	R COMPANY OTHER	THAN TH	E LEASE OWNER
	<sub>ppinto</sub> Willam A	Rvan			Agent			<u>-</u>	
NAME (PLEASE	PRINT)		<del>)</del>		TITLE Agent		<del></del>	· · · · · · · · · · · · · · · · · · ·	<del>/                                    </del>
SIGNATURE	Nelligne.	a Ty	<b> </b>		DATE 11:14:06		·	···	-
(This space for Sta	te use only)	V							
							RECEI	/ED	
API NUMBER AS	SIGNED: 43-	047-3	7395		APPROVAL:		NOV 17	2005	

DIV. OF OIL, GAS & MINING

## T6S, R22E, S.L.B.&M.



#### BASIS OF BEARINGS

#### LEGEND:

BASIS OF BEARINGS IS A G.P.S. OBSERVATION.

= 90' SYMBOL

= PROPOSED WELL HEAD.

= SECTION CORNERS LOCATED.

(AUTONOMOUS NAD 83)

LATITUDE = 4018'15.57" (40.304325)

LONGITUDE = 109'25'34.74" (109.426317)

(AUTONOMOUS NAD 27) LATITUDE = 40'18'15.70" (40.304361)

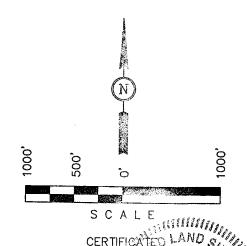
LONGITUDE = 109'25'32.27" (109.425631)

#### THE HOUSTON EXPLORATION COMPANY

Well location, NORTH HORSESHOE #2-15-6-22, located as shown in the NW 1/4 NE 1/4 of Section 15, T6S, R22E, S.L.B.&M. Uintah County, Utah.

#### BASIS OF ELEVATION

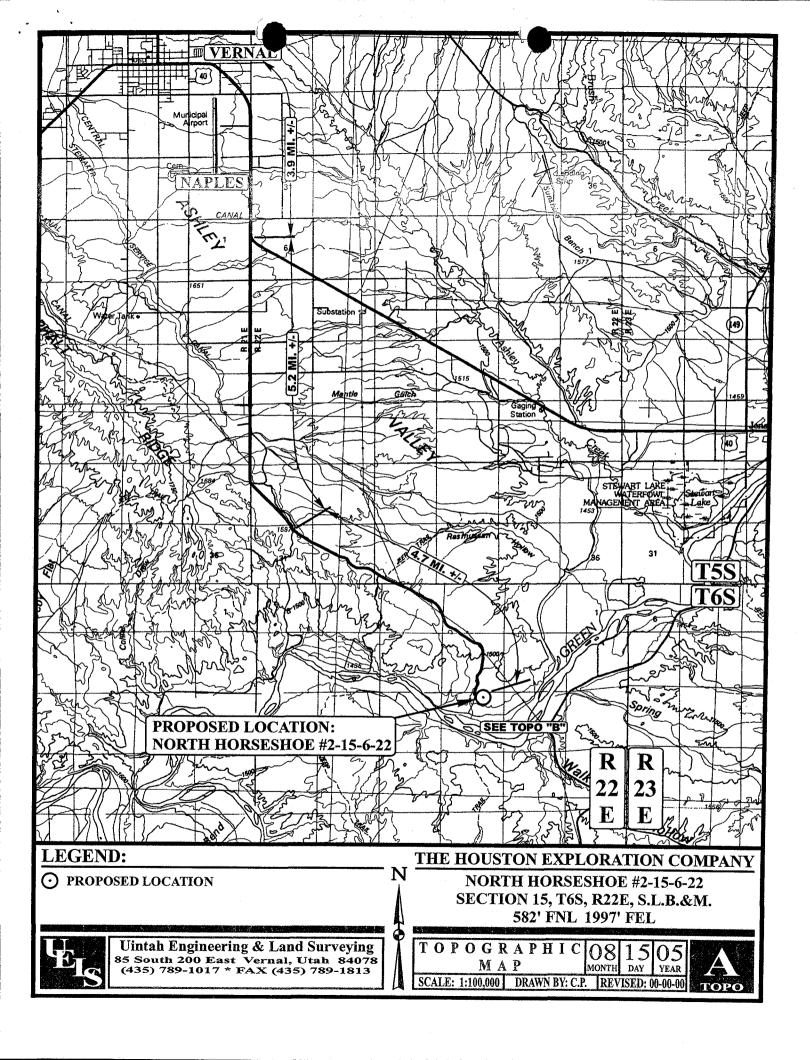
SPOT ELEVATION AT A HILLTOP LOCATED IN THE SW 1/4 OF SECTION 11, T6S, R22E, S.L.B.&M. TAKEN FROM THE RASMUSSEN HOLLOW QUADRANGLE, UTAH, UINTAH COUNTY, 7.5 MINUTE SERIES (TOPOGRAPHICAL MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED AS BEING 4993 FEFT



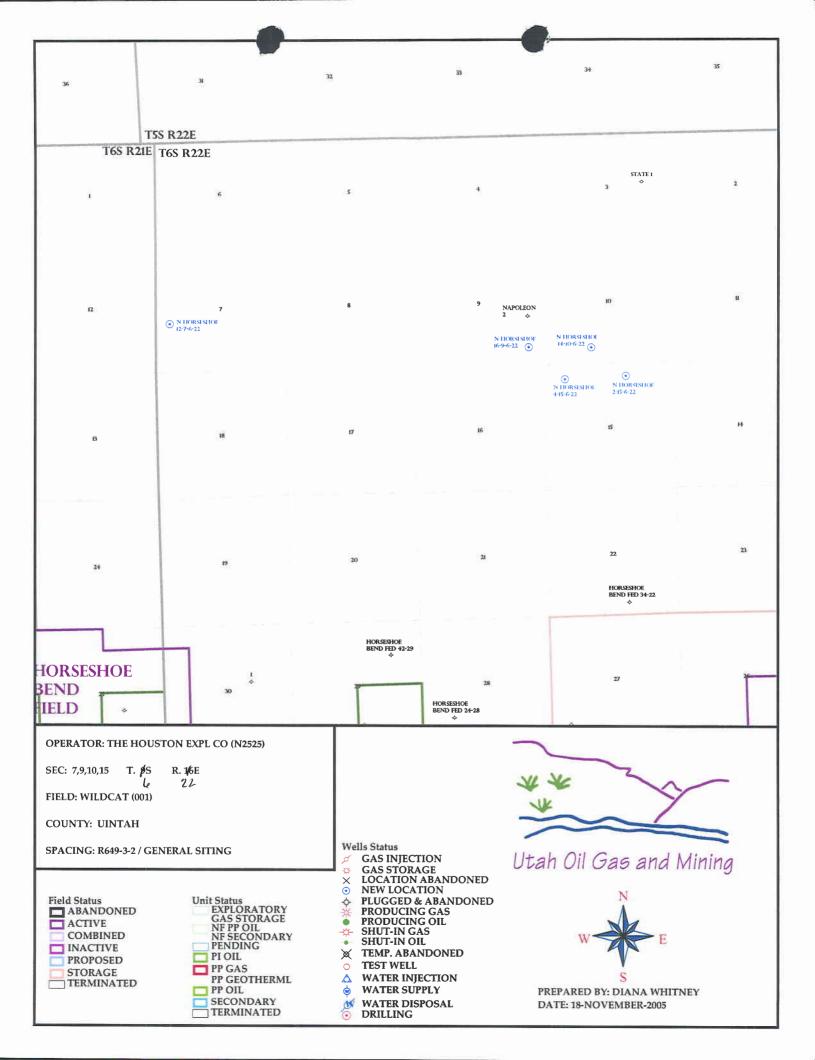
REGISTRATION: NO FINAL

UINTAH ENGINEERING & LAND SURVEYING
85 SOUTH 200 EAST - VERNAL, UTAH 84078
(435) 789-1017

SCALE	DATE SURVEYED: DATE DRAWN:			
1" = 1000'	08-03-05	08-11-05		
N.H. D.M. L.K.	REFERENCES G.L.O. PLAT			
WEATHER HOT	FILE THE HOUSTON EXPLORATION COMPANY			



APD RECEIVED: 11/17/2005	API NO. ASSIGNED: 43-047-37395			
WELL NAME: N HORSESHOE 2-15-6-22  OPERATOR: HOUSTON EXPLORATION CO, ( N2525 )  CONTACT: BILL RYAN	PHONE NUMBER: 435-789-0968			
PROPOSED LOCATION:  NWNE 15 060S 220E  SURFACE: 0582 FNL 1997 FEL  BOTTOM: 0582 FNL 1997 FEL  UINTAH  WILDCAT ( 1 )  LEASE TYPE: 3 - State  LEASE NUMBER: ML-47969  SURFACE OWNER: 3 - State  PROPOSED FORMATION: MVRD  COALBED METHANE WELL? NO	INSPECT LOCATN BY: / /  Tech Review Initials Date  Engineering DWD /20/06  Geology  Surface  LATITUDE: 40.30507  LONGITUDE: -109.4253			
RECEIVED AND/OR REVIEWED:  Plat Bond: Fed[] Ind[] Sta[] Fee[] (No. 10455044)  Potash (Y/N) Oil Shale 190-5 (B) or 190-3 or 190-13 Water Permit (No. T-76073) RDCC Review (Y/N) (Date: 12/03/2005)  NA Fee Surf Agreement (Y/N) Intent to Commingle (Y/N)	LOCATION AND SITING:  R649-2-3.  Unit  R649-3-2. General			
STIPULATIONS: 1- Spacing Stip  2- STATEMENT SF				



#### DIVISION OF OIL, GAS AND MINING APPLICATION FOR PERMIT TO DRILL STATEMENT OF BASIS

OPERATOR: THE HOUSTON EXPLORATION COMPANY
WELL NAME & NUMBER: NORTH HORSESHOE 2-15-6-22
API NUMBER: 43-047-37395
LOCATION: 1/4,1/4 <u>NW/NE</u> sec: <u>15</u> TWP: <u>68</u> RNG: <u>22E</u> , <u>582</u> FNL <u>1997</u> FEL
Geology/Ground Water:
The Houston Ex. Co. proposes to set 2000 feet of surface casing cemented to the surface. The base of the moderately saline water is estimated at 1,700 feet. A search of Division of Water Rights records shows two water wells within a 10,000 foot radius of the center of Section 15. These wells are approximately.75 miles and 1.5 miles NW of the proposed well. The nearest well produces water from an unknown depth and is listed as industrial use. The farther well is 120 feet deep and is used for domestic and stock watering. The surface formation at this location is the Uinta Formation. The Uinta Formation is made up of discontinuous sands interbedded with shales and are not expected to produce prolific aquifers. The proposed surface casing should adequately protect any peer surface equifors.
Adequately protect any near surface aquifers.  Reviewer: Brad Hill Date:
The predrill investigation of the surface was performed on 11/29/05. Ben Williams with UDWR and Jim Davis with SITLA were invited to this investigation by email on 11/22/05. Both were present.
Mr. Williams representing the UDWR stated the area is classified as high value yearlong habitat for antelope and critical value yearlong habitat for deer (relative to its vicinity to the Green River). He did not recommend any restriction periods or actions to the Operator or SITLA for these species. He stated no other wildlife species are expected to be significantly affected. Mr. Williams also gave Ms. Stringham and Mr. Davis a UDWR recommended seed mix to be used when reserve pit and location are reclaimed.
The location is in a drainage about 600 feet upslope from the Green River. Proper installation and maintenance of a liner in the reserve pit is essential during drilling operations.
This site is on State surface, with State minerals, and appears to be the best site for a location in the immediate area.
Reviewer: Floyd Bartlett Date: 11/30/05
Conditions of Approval/Application for Permit to Drill:

1. A synthetic liner with a minimum thickness of 16 mils and a felt subliner shall be properly installed and

maintained in the reserve pit.

OPERATOR: THE HOUSTON EXPLORATION COMPANY

WELL NAME & NUMBER: NORTH HORSESHOE 2-15-6-22

**API NUMBER:** 43-047-37395

LEASE: ML-47969 FIELD/UNIT: WILDCAT

LOCATION: 1/4,1/4 NW/NE sec: 15 TWP: 6S RNG: 22E, 582 FNL 1997 FEL

LEGAL WELL SITING: 460 F SEC. LINE; 460 F 1/4,1/4 LINE; 920 F ANOTHER WELL.

GPS COORD (UTM): 633820 E 4462596 N SURFACE OWNER: STATE OF UTAH

#### **PARTICIPANTS**

Floyd Bartlett (DOGM), Ginger Stringham (HOUSTON), Ben Williams (UDWR) Corey Stubbs (Stubbs & Stubbs Construction), Jim Davis, (SITLA).

#### REGIONAL/LOCAL SETTING & TOPOGRAPHY

The general setting and topography of the proposed wells within this area is on a relatively flat but slightly south sloping large bench north of the Green River. Asphalt ridge is to the north. The bench was formed by ancient river actions and deposited sediments. The area is approximately 14 miles south of Vernal, Utah and accessed by State Highway 45 and a medium standard Uintah County graveled road. The Green River floodplain lies on a lower bench to the south.

The proposed North Horseshoe 2-15-6-22 well is on a sandy gentle sloping bench approximately 600 feet north of the Green River. A small gentle swale exists to the east of the location To reach the location. 0.1 miles of new road will be constructed from the existing County east to the proposed location. The only perennial water in the area is in the Green River. The location in the immediate area is essentially flat.

#### SURFACE USE PLAN

CURRENT SURFACE USE: wildlife, winter cattle grazing and hunting.

PROPOSED SURFACE DISTURBANCE: <u>Construction of 0.1 miles of road, and a well location 345'x 210' plus reserve pit and soil stockpile storage</u> outside the described area.

LOCATION OF EXISTING WELLS WITHIN A 1 MILE RADIUS: <u>None shown on attached 'TOPO C" map from GIS database</u>. Three other wells are planned in the immediate area and 1 abandoned well exists.

LOCATION OF PRODUCTION FACILITIES AND PIPELINES: All production facilities will be on location and added after drilling well. Pipeline will follow the edge of the access road approximately 1802 feet to a tie-in point with the proposed 14-10-6-22 well.

SOURCE OF CONSTRUCTION MATERIAL: <u>All construction material will be</u> borrowed from site during construction of location.

ANCILLARY FACILITIES: None will be required.

WILL DRILLING AT THIS LOCATION GENERATE PUBLIC INTEREST OR CONCERNS? EXPLAIN: Unlikely. Oilfield activity is common in the area. The location is not within the Green River floodplain.

#### WASTE MANAGEMENT PLAN:

Drilled cuttings will be settled into reserve pit. Liquids from pit will be allowed to evaporate. Formation water will be confined to storage tanks. Commercial contractor will handle sewage facilities, storage and disposal. Trash will be contained in trash baskets and hauled to an approved land fill.

#### ENVIRONMENTAL PARAMETERS

AFFECTED FLOODPLAINS AND/OR WETLANDS: None. The Green River is approximately 600 feet to the south.

FLORA/FAUNA: Vegetation is dominated by broom snakeweed. Cheat grass, Russian thistle and annual mustard also exist.

Dominant fauna is pronghorn, rodents, songbirds, raptors, deer, bobcat, coyote.

SOIL TYPE AND CHARACTERISTICS: Deep loamy sand, probably underlain with river deposited gravels.

EROSION/SEDIMENTATION/STABILITY: No stability problems are anticipated with the construction and operation of the location.

PALEONTOLOGICAL POTENTIAL: none observed.

#### RESERVE PIT

CHARACTERISTICS: 150' by 75' and 12' deep. The reserve pit is planned in an area of cut on the southwest side of the location. No stabilization problems are expected.

LINER REQUIREMENTS (Site Ranking Form attached): A liner will be required for reserve pit. Sensitivity score of 27, rating as Level I, Highly Sensitive. Operator routinely installs a 16 mil. liner in all reserve pits.

#### SURFACE RESTORATION/RECLAMATION PLAN

AS PER SITLA.

SURFACE AGREEMENT: AS PER SITLA.

CULTURAL RESOURCES/ARCHAEOLOGY: Site was inspected by Sagebrush Archeological Consultants on 09/16/2005. A report of this investigation will be placed in the file.

#### OTHER OBSERVATIONS/COMMENTS

Ben Williams representing the UDWR stated the area is classified as high

value yearlong habitat for antelope and critical value yearlong habitat for deer relative to its vicinity to the Green River. He did not recommend any restrictions to the Operator or SITLA.

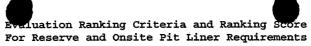
A cattle guard is proposed to cross an existing wire fence. It will be included in SITLAS permit to the operator.

#### ATTACHMENTS

Photos of site have been taken and placed on file.

Floyd Bartlett
DOGM REPRESENTATIVE

11/29/2005 1:30 PM DATE/TIME



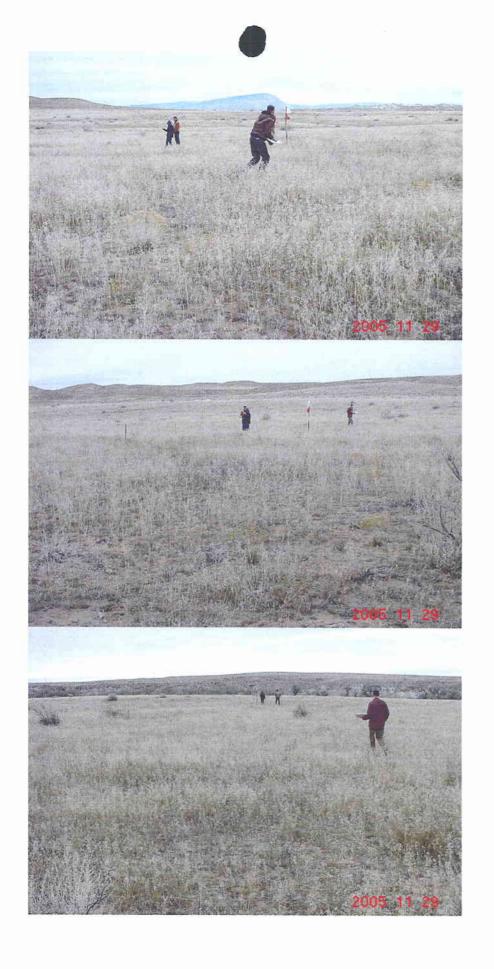
101 1050170 0110		
Site-Specific Factors	Ranking	<u>Site Ranking</u>
Distance to Groundwater (feet)		
>200	0	
100 to 200	5	
75 to 100	10	
25 to 75	15	<u>o</u>
<25 or recharge area	20	<del>-</del>
Distance to Surf. Water (feet)	0	
300 to 1000	2	•
200 to 300	10	
100 to 200	15	
< 100	20	_2
Distance to Nearest Municipal Well (feet)		
>5280	0	
1320 to 5280	5	
500 to 1320	10	_
<500	20	0
Distance to Other Wells (feet)		
>1320	Ó	
300 to 1320	10	
<300	20	0
Native Soil Type		
Low permeability	0	
Mod. permeability	10	
High permeability	20	20
Fluid Type		
Air/mist	0	
Fresh Water	5	
TDS >5000 and <10000	10	
TDS >10000 or Oil Base Mud Fluid	15	
containing significant levels of		
hazardous constituents	20	5
Drill Cuttings		
Normal Rock	Ó	
Salt or detrimental	10	0
Annual Precipitation (inches)	0	
10 to 20	0 5	
>20	10	0
Affected Populations		
<10	0	
10 to 30	6	
30 to 50	8	
>50	10	0
Presence of Nearby Utility Conduits		
Not Present	0	
Unknown	10	
Present	15	0

27

(Level I Sensitivity)

Sensitivity Level I = 20 or more; total containment is required. Sensitivity Level II = 15-19; lining is discretionary. Sensitivity Level III = below 15; no specific lining is required.

Final Score





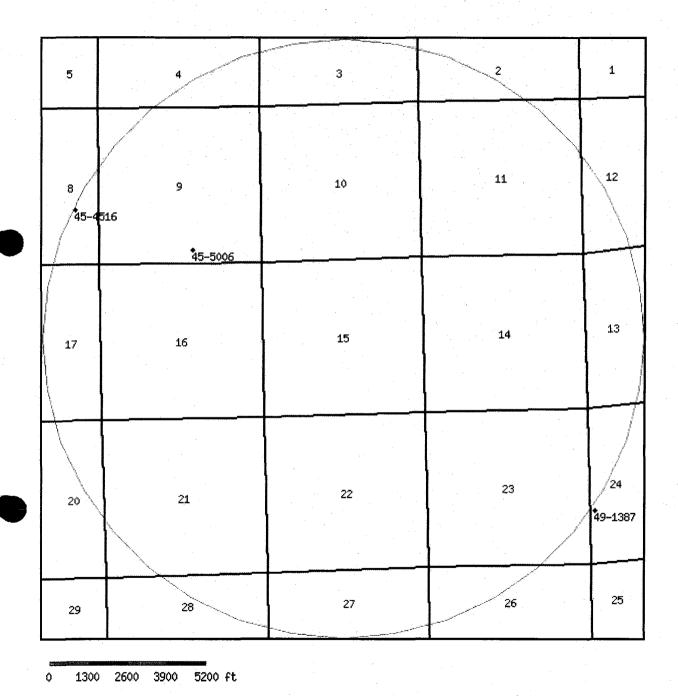


**WRPLAT Program Output Listing** 

Version: 2004.12.30.00

Rundate: 12/06/2005 09:30 AM

Radius search of 10000 feet from a point N2640 E2640 from the SW corner, section 15, Township 6S, Range 22E, SL b&m Criteria:wrtypes=W,C,E podtypes=U status=U,A,P usetypes=all



### Water Rights

WR Number	Diversion Type/Location	Well Log	Status	Priority Us	es CFS AC	FT Owner Name
<u>45-4516</u>	Underground	well info	P	19800422 DI	S 0.015 0.00	TODD R., SUSAN F., RICKY T. & CHRISTINA M. THACKER
	S775 W775 E4 08 6S 22E SL					P.O. BOX 876
<u>45-5006</u>	Underground		U	19820416 O	0.030 0.00	00 R. G. WILEY
	N450 E400 S4 09 6S 22E SL					P.O. BOX #202
49-1387	Underground		A	19860102 OS	0.000 5.75	USA BUREAU OF LAND MANAGEMENT
e e e e	N1800 E100 SW 24 6S 22E SL					2370 SOUTH 2300 WEST

Natural Resources | Contact | Disclaimer | Privacy Policy | Accessibility Policy

### STATE ACTIONS

### Resource Development Coordinating Committee Governor's Office of Planning and Budget

### Governor's Office of Planning and Budget 5110 State Office Building

### SLC, UT 84114

Phone No. 537-9230

1.	S	tate	Αg	en	CV

Oil, Gas and Mining 1594 West North Temple, Suite 1210 Salt Lake City, UT 84114-5801 2. Approximate date project will start:

Upon Approval or December 2, 2005

3. Title of proposed action:

Application for Permit to Drill

4. Description of Project:

The Houston Exploration Company proposes to drill the North Horseshoe 2-15-6-22 well (wildcat) on a State lease ML-47969, Uintah County, Utah. This action is being presented to the RDCC for consideration of resource issues affecting state interests. The Division of Oil, Gas and Mining is the primary administrative agency in this action and must issue approval before operations commence.

5. Location and detailed map of land affected (site location map required, electronic GIS map preferred)

(include UTM coordinates where possible) (indicate county)

582' FNL 1997' FEL, NW/4 NE/4,

Section 15, Township 6 South, Range 22 East, Uintah County, Utah

6. Possible significant impacts likely to occur:

Surface impacts include up to five acres of surface disturbance during the drilling and completion phase (estimated for five weeks duration). If oil and gas in commercial quantities is discovered, the location will be reclaimed back to a net disturbance of between one and two acres – not including road, pipeline, or utility infrastructure. If no oil or gas is discovered, the location will be completely reclaimed.

- 7. Identify local government affected
  - a. Has the government been contacted? No.
  - b. When?
  - c. What was the response?
  - d. If no response, how is the local government(s) likely to be impacted?
- 8. For acquisitions of land or interests in land by DWR or State Parks please identify state representative and state senator for the project area. Name and phone number of state representative, state senator near project site, if applicable:
  - a. Has the representative and senator been contacted? N/A
- 9. Areawide clearinghouse(s) receiving state action: (to be sent out by agency in block 1)
  Uintah Basin Association of Governments

10. For further information, contact:

11. Signature and title of authorized officer

Diana Whitney

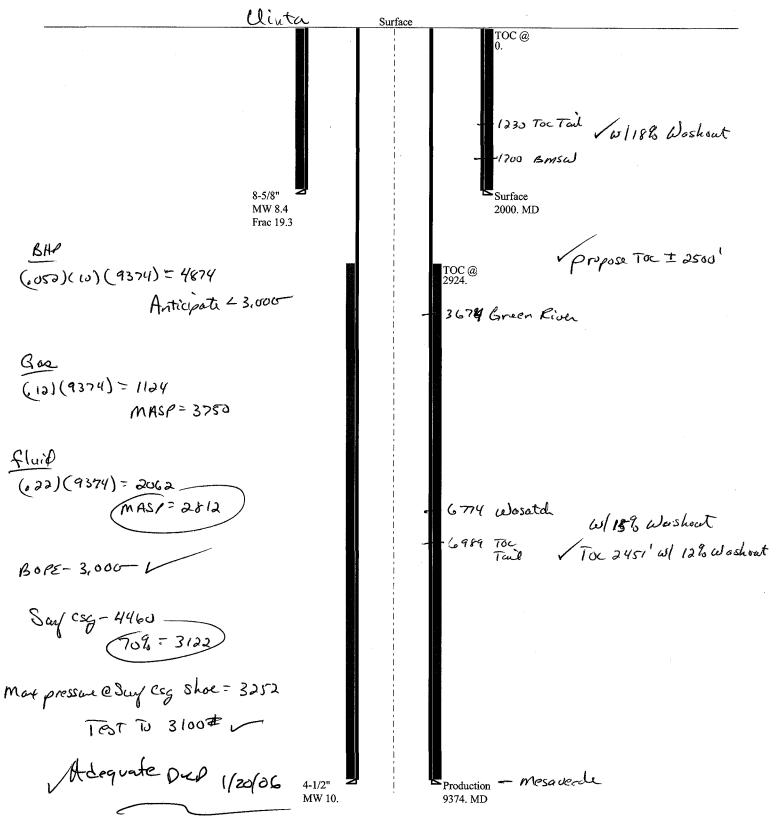
**Phone:** (801) 538-5312

Gil Hunt, Associate Director

Date: November 18, 2005

# —06 Houston N Horseshoe 2—6-22

**Casing Schematic** 





01-06 Houston N Horseshoe 2-15-6-22

Operator:

**Houston Exploration Company** 

String type:

Surface

Project ID:

43-047-37395

Location:

**Uintah County** 

Design parameters:	Minimum design fa
Collapse	Collapse:

actors: **Environment:** 

H2S considered?

No

Mud weight: 8.400 ppg Design is based on evacuated pipe.

Collapse: Design factor

Surface temperature:

65 °F

1.125

Bottom hole temperature: Temperature gradient:

93 °F 1.40 °F/100ft

Minimum section length:

250 ft

**Burst:** 

Design factor

1.00

Cement top:

Surface

**Burst** 

Max anticipated surface

No backup mud specified.

pressure:

1,760 psi

**Tension:** 

Non-directional string.

Internal gradient: 0.120 psi/ft Calculated BHP 2,000 psi

8 Round STC: 8 Round LTC:

1.80 (J) 1.80 (J) Buttress: 1.60 (J) 1.50 (J)

Premium: Body yield: 1.50 (B)

Re subsequent strings:

Next setting depth:

9,359 ft 10.000 ppg

Tension is based on buoyed weight. Neutral point: 1,749 ft

Next mud weight: Next setting BHP:

4,862 psi 19.250 ppg

Fracture mud wt: Fracture depth: Injection pressure

2,000 ft 2,000 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Internal Capacity (ft³)
1	2000	8.625	36.00	J-55	ST&C	2000	2000	7.7	143.5
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (Kips)	Tension Strength (Kips)	Tension Design Factor
1	873	3450	3.954	2000	4460	2.23	63	434	6.89 J

Prepared

Clinton Dworshak

Utah Div. of Oil & Mining

Phone: 801-538-5280

FAX: 810-359-3940

Date: January 19,2006 Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 2000 ft, a mud weight of 8.4 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Well name:

01-06 Houston N Horseshoe 2-15-6-22

Operator:

**Houston Exploration Company** 

String type:

Production

Project ID:

43-047-37395

Location:

**Collapse** 

**Uintah County** 

Minimum design factors:

Collapse:

**Environment:** 

H2S considered?

No

Mud weight: 10.000 ppg Design is based on evacuated pipe.

Design factor 1.125 Surface temperature: Bottom hole temperature:

65 °F 196 °F

Temperature gradient:

1.40 °F/100ft

Minimum section length: 1,500 ft

Non-directional string.

**Burst:** 

Design factor

1.00

Cement top:

2,924 ft

<u>Burst</u>

Max anticipated surface

No backup mud specified.

pressure:

Design parameters:

3,745 psi

Internal gradient: Calculated BHP

0.120 psi/ft 4,870 psi

**Tension:** 

8 Round STC:

1.80 (J) 8 Round LTC: 1.80 (J)

**Buttress:** 

1.60 (J) Premium: 1.50 (J)

Body yield:

1.50 (B)

Tension is based on buoyed weight. Neutral point: 7,973 ft

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Internal Capacity (ft³)	
1	9374	4.5	11.60	N-80	LT&C	9374	9374	3.875	217.3	
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (Kips)	Tension Strength (Kips)	Tension Design Factor	
1	4870	6350	1.304	4870	7780	1.60	92	223	2.41 J	

Prepared

Clinton Dworshak

Utah Div. of Oil & Mining

Phone: 801-538-5280 FAX: 810-359-3940

Date: January 19,2006 Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 9374 ft, a mud weight of 10 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

From:

Robert Clark

To:

Whitney, Diana 11/28/2005 9:17:07 AM

Date: Subject:

RDCC short turn around responses

The following comments are being submitted directly to DOG&M due to their short turn around status.

The following comments are submitted for RDCC #5944-5949. The comments pertain to all projects. Comments begin: The proposed *North Horseshoe 12-7-6-22, 16-9-6-22, 14-10-6-22, 2-15-6-22, 4-15-6-22, and 3-16-6-21* well drilling projects in Uintah County may require a permit, known as an Approval Order, from the Utah Division of Air Quality if any compressor stations are constructed at the site. A permit application, known as a Notice of Intent (NOI), should be submitted to the Executive Secretary at the Utah Division of Air Quality at 150 N. 1950 West, SLC, UT, 84116 for review according to the Utah Air Quality Rule R307-401. Permit: Notice of Intent and Approval Order. The proposed project is also subject to Utah Air Quality Rule R307-205-3, Fugitive Dust, due to the fugitive dust that is generated during the excavating phases of the project. These rules apply to construction activities that disturb an area greater than 1/4 acre in size. A permit, known as an Approval Order, is not required from the Division of Air Quality, but steps need to be taken to minimize fugitive dust, such as, watering and/or chemical stabilization, providing vegetative or synthetic cover and windbreaks. A copy of the rules may be found at www.rules.utah.gov/publicat/code/r307/r307.htm . Comments end.

The following comments are submitted for RDCC #5950-5952. The comments pertain to all projects. Comments begin: The proposed *Thurston 5-15-9-24, 13-29-9-24, and 10-15-9-24* well drilling projects in Uintah County may require a permit, known as an Approval Order, from the Utah Division of Air Quality if any compressor stations are constructed at the site. A permit application, known as a Notice of Intent (NOI), should be submitted to the Executive Secretary at the Utah Division of Air Quality at 150 N. 1950 West, SLC, UT, 84116 for review according to the Utah Air Quality Rule R307-401. Permit: Notice of Intent and Approval Order. The proposed project is also subject to Utah Air Quality Rule R307-205-3, Fugitive Dust, due to the fugitive dust that is generated during the excavating phases of the project. These rules apply to construction activities that disturb an area greater than 1/4 acre in size. A permit, known as an Approval Order, is not required from the Division of Air Quality, but steps need to be taken to minimize fugitive dust, such as, watering and/or chemical stabilization, providing vegetative or synthetic cover and windbreaks. A copy of the rules may be found at www.rules.utah.gov/publicat/code/r307/r307.htm. Comments end.

Robert Clark

Division of Air Quality 536-4435

CC:

Mcneill, Dave; Wright, Carolyn

From:

Ed Bonner

To:

Whitney, Diana

Date:

12/20/2005 9:54:05 AM

Subject:

Well Clearance

The following wells have been given cultural resource clearance by the Trust Lands Cultural Resources Group:

Enduring Resources, LLC

Big Pack 12-21-11-2

Big Pack 12-21-13-2

Big Pack 12-21-24-2

### EOG Resources, Inc.

Chapita Wells Unit 695-32

### The Houston Exploration Company

North Walker Hollow 2-32-6-23

North Walker Hollow 8-32-6-23

North Walker Hollow 10-32-6-23

North Walker Hollow 12-32-6-23

North Walker Hollow 16-32-6-23

North Horseshoe 12-7-6-22

North Horseshoe 16-9-6-22

North Horseshoe 14-10-6-22

North Horseshoe 2-15-6-22

North Horseshoe 4-15-6-22

#### Westport Oil & Gas Company

NBU 1022-20N

NBU 1022-20L

NBU 1022-20F

NBU 1022-20D

If you have any questions regarding this matter please give me a call.

CC:

Garrison, LaVonne; Hill, Brad; Hunt, Gil

### Clinton Dworshak - cement sks changes

From:

eric bowedn <starman686@yahoo.com>

To:

<clintondworshak@utah.gov>

Date:

1/18/2006 1:39 PM

Subject: cement sks changes

here are the cement sks changes that you reqested.

Yahoo! Photos - Showcase holiday pictures in hardcover

Photo Books. You design it and we'll bind it!

## THE HOUSTON EXPLORATION COMPANY

WELL NAME	API	LEAD	TAIL
		sks	sks
NH 9-16-6-21	43-047-37439	415	514
NH 3-16-6-21	43-047-37391	415	514
NH 13-16-6-21	43-047-37575	415	514
NH 15-2-6-21	43-047-37477	415	514
NH 13-2-6-21	43-047-37476	415	514
NH 11-16-6-21	43-047-37441	499	515
NH 7-16-6-21	43-047-37438	499	515
NH 1-16-6-21	43-047-37442	499	515
NH 15-16-6-21	43-047-37440	499	515
NH 12-7-6-22	43-047-37392	415	515
NH 16-9-6-22	43-047-37393	415	515
NH 14-10-6-22	43-047-37394	415	515
NH 4-15-6-22	43-047-37396	415	515
NH 2-15-6-22	43-047-37395	415	515
NWH 13-36-6-23	43-047-37463	357	526
NWH 15-36-6-23	43-047-37464	357	526
NWH 11-36-6-23	43-047-37462	357	526
NWH 14-32-6-23	43-047-37478	357	526
NWH 2-32-6-23	43-047-37399	357	526
NWH 8-32-6-23	43-047-37401	357	526
NWH 10-32-6-23	43-047-37400	357	526
NWH 12-32-6-23	43-047-37397	357	526
NWH 16-32-6-23	43-047-37398	357	526
ž			-
G 2-2-6-19	43-047-37561	153	1,050
G 16-2-6-19	43-047-37562	153	1,050
G 1-2-6-19	43-047-37563	153	1,050
G 3-2-6-19	43-047-37568	153	1,050



State of Utah

# Department of Natural Resources

MICHAEL R. STYLER Executive Director

Division of Oil, Gas & Mining

JOHN R. BAZA
Division Director

JON M. HUNTSMAN, JR. Governor

GARY R. HERBERT Lieutenant Governor

January 23, 2006

Houston Exploration Company 1100 Louisiana, Suite 2000 Houston, TX 77002

Re:

North Horseshoe 2-15-6-22 Well, 582' FNL, 1997' FEL, NW NE, Sec. 15, T. 6 South, R. 22 East, Uintah County, Utah

### Gentlemen:

Pursuant to the provisions and requirements of Utah Code Ann.§ 40-6-1 et seq., Utah Administrative Code R649-3-1 et seq., and the attached Conditions of Approval, approval to drill the referenced well is granted.

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date. The API identification number assigned to this well is 43-047-37395.

Sincerely,

Gil Hunt

Associate Director

THELT

pab Enclosures

cc:

**Uintah County Assessor** 

**SITLA** 

Operator:	Houston Exploration Company
Well Name & Number	North Horseshoe 2-15-6-22
API Number:	43-047-37395
Lease:	ML-47969

### **Conditions of Approval**

T. 6 South

**R.** 22 East

Sec. 15

### 1. General

**Location:** NW NE

Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for Permit to Drill.

### 2. Notification Requirements

The operator is required to notify the Division of Oil, Gas and Mining of the following actions during drilling of this well:

- 24 hours prior to cementing or testing casing
- 24 hours prior to testing blowout prevention equipment
- 24 hours prior to spudding the well
- within 24 hours of any emergency changes made to the approved drilling program
- prior to commencing operations to plug and abandon the well

The following are Division of Oil, Gas and Mining contacts and their work telephone numbers (please leave a voice mail message if the person is not available to take the call):

- Dan Jarvis at (801) 538-5338
- Carol Daniels at (801) 538-5284 (spud)

### 3. Reporting Requirements

All required reports, forms and submittals will be promptly filed with the Division, including but not limited to the Entity Action Form (Form 6), Report of Water Encountered During Drilling (Form 7), Weekly Progress Reports for drilling and completion operations, and Sundry Notices and Reports on Wells requesting approval of change of plans or other operational actions.

- 4. Compliance with the State of Utah Antiquities Act forbids disturbance of archeological, historical, or paleontological remains. Should archeological, historical or paleontological remains be encountered during your operations, you are required to immediately suspend all operations and immediately inform the Trust Lands Administration and the Division of State History of the discovery of such remains.
- 5. Compliance with the Conditions of Approval/Application for Permit to Drill outlined in the Statement of Basis. (Copy Attached)

Page 2 43-047-37395 January 23, 2006

- 6. This proposed well is located in an area for which drilling units (well spacing patterns) have not been established through an order of the Board of Oil, Gas and Mining (the "Board"). In order to avoid the possibility of waste or injury to correlative rights, the operator is requested, once the well has been drilled, completed, and has produced, to analyze geological and engineering data generated therefrom, as well as any similar data from surrounding areas if available. As soon as is practicable after completion of its analysis, and if the analysis suggests an area larger than the quarter-quarter section upon which the well is located is being drained, the operator is requested to seek an appropriate order from the Board establishing drilling and spacing units in conformance with such analysis by filing a Request for Agency Action with the Board.
- 7. Operator shall comply with applicable recommendations resulting from Resource Development Coordinating Committee review. Statements attached.



State of Utah

Department of Natural Resources

> MICHAEL R. STYLER Executive Director

Division of Oil, Gas & Mining

JOHN R. BAZA
Division Director

JON M. HUNTSMAN, JR. Governor

GARY R. HERBERT Lieutenant Governor

February 26, 2007

Ginger Stringham
The Houston Exploration Co.
1100 Louisiana, Suite 2000
Houston, TX 77002-6800

Re:

APD Rescinded -North Horseshoe 2-15-6-22 Sec. 15 T. 6 R. 22E

Uintah County, Utah API No. 43-047-37395

Ms. Stringham:

The Application for Permit to Drill (APD) for the subject well was approved by the Division of Oil, Gas and Mining (Division) on January 23, 2006. No drilling activity at this location has been reported to the division. Therefore, approval to drill the well is hereby rescinded, effective February 26, 2007.

A new APD must be filed with this office for approval <u>prior</u> to the commencement of any future work on the subject location.

If any previously unreported operations have been performed on this well location, it is imperative that you notify the Division immediately.

Sincerely,

Diana Mason

**Environmental Scientist** 

cc: Well File

SITLA, Ed Bonner

### Division of Oil, Gas and Mining

COMMENTS:

### **OPERATOR CHANGE WORKSHEET**

1. DJJ 2. CDW

Change of Operator (Well Sold)		X - Operator Merger						
The operator of the well(s) listed below has chan	ged, effectiv	6/1/2007						
FROM: (Old Operator): N2525 - The Houston Exploration Company 1100 Louisiana, Suite 2000 Houston, TX 77002	TO: (New Operator): N6965-Forest Oil Corporation 707 17th St, Suite 3600 Denver, CO 80202							
Phone: 1-(713) 830-6800	Phone: 1 (303)	812-1755						
CA No.		T DNG	Unit:	TO A STORY OF THE	LEASE	WELL	WELL	
WELL NAME	SEC TWI	N KNG	1 1	ENTITY NO	TYPE	TYPE	STATUS	
SEE ATTACHED LIST		<u></u>						
OPERATOR CHANGES DOCUMENT Enter date after each listed item is completed 1. (R649-8-10) Sundry or legal documentation w. 2. (R649-8-10) Sundry or legal documentation w. 3. The new company was checked on the Depart 4a. Is the new operator registered in the State of 0. 4b. If NO, the operator was contacted contacted of 0. 5a. (R649-9-2) Waste Management Plan has been received by the state of 0. 5b. Inspections of LA PA state/fee well sites complete. Reports current for Production/Disposition & 0. 6c. Federal and Indian Lease Wells: The BL or operator change for all wells listed on Feder 7. Federal and Indian Units:  The BLM or BIA has approved the successon 8. Federal and Indian Communization Aganthe BLM or BIA has approved the operator 9. Underground Injection Control ("UIC")	as received fas received fas received from: ecceived on: blete on: Sundries on: LM and or the ral or Indian r of unit operates for all wells	me BIA I leases of crator for ("CA"; slisted w	ENEW operator c, Division of Co Business Numb IN PLACE YES has approved the on: r wells listed on:	on: erporations er: merger, na BLM	571171-0143  me change, _not yet	BIA	7/31/2007	
9. Underground Injection Control ("UIC Inject, for the enhanced/secondary recovery u		or the w	ater disposal wel	l(s) listed o	on:	n/a	_	
DATA ENTRY:  1. Changes entered in the Oil and Gas Database 2. Changes have been entered on the Monthly O 3. Bond information entered in RBDMS on: 4. Fee/State wells attached to bond in RBDMS o 5. Injection Projects to new operator in RBDMS 6. Receipt of Acceptance of Drilling Procedures BOND VERIFICATION: 1. Federal well(s) covered by Bond Number: 2. Indian well(s) covered by Bond Number: 3a. (R649-3-1) The NEW operator of any fee we 3b. The FORMER operator has requested a release	e on: perator Ch  n: on: for APD/Ne  ell(s) listed con se of liabilit	ange Spew on: covered y from t	7/31/2007 pread Sheet on: 7/31/2007 7/31/2007 n/a  6236351 n/a by Bond Numbe	pending	7/31/2007	-		
<ul><li>LEASE INTEREST OWNER NOTIFIC</li><li>4. (R649-2-10) The FORMER operator of the fecond their responsibility to notify all interest own</li></ul>	e wells has b	een con	stacted and inform	ned by a le 8/1/2007	tter from the	Division		

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

1	5. LEASE DESIGNATION AND SERIAL NUMBER:
	See Attached List

	See Attached List
SUNDRY NOTICES AND REPORTS ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter pit, drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals	7. UNIT or CA AGREEMENT NAME.
1. TYPE OF WELL	8. WELL NAME and NUMBER:
	See Attached List
2. NAME OF OPERATOR:  N/-9/	9. API NUMBER:
4. LOCATION OF WELL	
FOOTAGES AT SURFACE: See attached list	COUNTY:
10 M	
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:	STATE: UTAH
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOT	ICE, REPORT, OR OTHER DATA
TYPE OF SUBMISSION TYPE OF A	CTION
ACIDIZE DEEPEN	
(Submit Original Form Only)	<u></u>
Date of work completion: CHANGE WELL STATUS PRODUCTION (START/R	ESUME) WATER SHUT-OFF
COMMINGLE PRODUCING FORMATIONS RECLAMATION OF WELL	SITE OTHER: Change of Operator
CONVERT WELL TYPE RECOMPLETE - DIFFER	ENT FORMATION
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including date	s, depths, volumes, etc. N2525
N-2525) to Forest Oil Corporation (N-6965). Forest merged with The Houston E	from The Houston Exploration Company exploration Company, a copy of the merger
Forest Oil Corporation as new operator, accepts all applicable terms, conditions approved operations conducted on the lease or portion of the lease described.	, stipulations and restrictions concerning
Forest Oil Corporation meets the State of Utah bonding requirements under Saf	eco bond #6218963.
Please send all future correspondence to Forest Oil Corporation at the above lis	ted address.
Forest Oil Corporation, 707 17th Street, Suite #3600, Denver, CO 80202	
SUNDRY NOTICES AND REPORTS ON WELLS  Do not use this form for proposals to diff new wells, significantly designe wells in white below current ballom-hole death, resinter plugged wells, or to reflect the forecostal blevals. Use APPLICATION FOR PERMIT TO ORBIL from for such proposals.  1 TYPE OF WELL OIL WELL GAS WELL OTHER See Attached List  2 MAKE OF OPERATOR FOREST OIL Corporation  3 ADDRESS OF OPERATOR FOREST OIL CORPORATION FOR STATE CO ZIP 80202  4 LOCATION OF WELL FOOTAGES AT SURFACE See attached List  10 FIELD AND POOL, OR WILDCAT:  11 CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA TYPE OF SUBMISSION  11 CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA TYPE OF SUBMISSION  12 CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA TYPE OF SUBMISSION  13 CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA TYPE OF SUBMISSION  14 CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA TYPE OF SUBMISSION  15 CHECK APPROPRIATE CURRENT FORMATION  16 CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA TYPE OF SUBMISSION  17 CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA TYPE OF SUBMISSION  18 CHECK APPROPRIATE CURRENT FORMATION  19 CHECK APPROPRIATE CURRENT FORMATION  10 CHECK APPROPRIATE CURRENT FORMATION  10 CHECK APPROPRIATE CURRENT FORMATION  11 CHECK APPROPRIATE CURRENT FORMATION  12 CHECK APPROPRIATE CURRENT FORMATIONS  13 CHECK APPROPRIATE CURRENT FORMATION  14 CHECK APPROPRIATE CURRENT FORMATION  15 CHECK APPROPRIATE CURRENT FORMATION  16 CHECK APPROPRIATE CURRENT FORMATION  17 UNIT OR CA AGREEMENT NAME  18 CHANGE WILL THE COLUMN FORMATIONS  19 CHECK APPROPRIATE CURRENT FORMATION  19 CHECK APPROPRIATE COLUMN FORMATIONS  10 CHECK APPROPRIATE CURRENT FORMATION  10 CHECK APPROPRIATE CURRENT FORMATION  11 CHECK APPROPRIATE COLUMN FORMATIONS  12 CHECK APPROPRIATE COLUMN FORMATIONS  13 CHECK APPROPRIATE COLUMN FORMATIONS  14 CHECK APPROPRIAT	
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J. <b>¢</b> . Ridens, Senior Vice President - Western Region	Date
Joanne C. Hresko Vice	President & General Mar - Northern Division
NAME (PLEASE PRINT) OOUTHOUSE OF THOSE	resident & Scheral Nigr. Worthern Division
SIGNATURE DAME . DUSTUS DATE	7-5.07
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APPROVED 1/13/107 NO Wells 1	I AI D Succession
& New St	atus received
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Division of Oil, Gas and Mining
Earlene Russell, Engineering Technician

JUL 3 U 2007

well name	sec	twp	rng	api	entity	lease	well	stat	flag	unit	qtr_qtr	1 num	on no
FEDERAL 28-01	28			4304730098		Federal	GW		ing	MILL	SESE		op no N2525
CONOCO STATE 32-2	32	ļ	<del></del>	4304730100	10096	<del></del>	GW	i		-	NENE	ML-11124	N2525
ROCK HOUSE 11-31	31		<u></u>	4304733312	-		GW				NESW	UTU-76281	N2525
BONANZA 4B-12	12	<b></b>		4304733806			D	PA			NWNW	UTU-74426	N2525
WALKER HOLLOW 13-31	31			4304735039	11050		GW	LA			SESW	UTU-76280	N2525
ROCK HOUSE 6D-32	32			4304735409	14293		GW	S			SENW	ML-47063	N2525
BONANZA 2B-16	16		4	4304735694	14186		D	PA			NWNE	ML-46526	N2525
ROCK HOUSE 2D-36	36		t	4304735759	14357		GW	P		-	NWNE	ML-47061	N2525
ROCK HOUSE 2D-32	32			4304735760	14317		GW				NWNE	ML-47063	N2525
ROCK HOUSE 10D-32	32			4304735761	14318		GW				NWSE	ML-47063	N2525
ROCK HOUSE 12D-32	32			4304735762	14294	<del></del>	GW	P	ļ		NWSW	ML-47063	N2525
ROCK HOUSE 11-36	36			4304735900	14478		GW	P			NESW	ML-46907	N2525
ROCK HOUSE 4-36	36			4304735901	14449		GW	S	<u> </u>		NWNW	ML42061	N2525
BONANZA 12A-22	22			4304735922		Federal	D	PA	<u> </u>		NWSW	UTU-78118	N2525
BONANZA 14-16	16	<u> </u>		4304735941	14521		$\overline{\mathbf{D}}$	PA			SESW	ML-46526	N2525
ROCK HOUSE 11-2	02			4304736153	14695	1	GW	P	С		NESW	ML-47078	N2525
ROCK HOUSE 7-32-10-23	32		_	4304736306	14766		L	S			SWNE	ML-47063	N2525
ROCK HOUSE 3-32-10-23	32			4304736307	14781			P			NENW	ML-47063	N2525
ROCK HOUSE 5-32-10-23	32			4304736410	14727		GW	S	<del> </del>		SWNW	ML-47063	N2525
GUSHER 6-2	02			4304736963	1	State	OW	LA	<u> </u>		SENW	ML-49144	N2525
N HORSESHOE 3-16-6-21	16			4304737391	15716	·	GW	DRL	C		NENW	ML-49317	N2525
N HORSESHOE 12-7-6-22	07		-	4304737392	10.10	State		LA			NWSW	ML-47969	N2525
N HORSESHOE 16-9-6-22	09			4304737393		State		LA	<u> </u>		SESE	ML-47969	N2525
N HORSESHOE 14-10-6-22	10	060S		4304737394		State	GW	LA	-	<b></b>	SESW	ML-47969	N2525
N HORSESHOE 2-15-6-22	15			4304737395		State	GW	LA			NWNE	ML-47969	N2525
N HORSESHOE 4-15-6-22	15	I		4304737396		State	GW	LA		<b></b> -	NWNW	ML-47969	N2525
N WALKER HOLLOW 12-32-6-23	32			4304737397		State	GW	LA			NWSW	ML-47777	N2525
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N WALKER HOLLOW 8-32-6-23	32			4304737401	1	State		LA			SENE	ML-47777	N2525
N WALKER HOLLOW 11-36-6-23	36			4304737462		State	GW	LA		ļ	NESW	ML-47970	N2525
N WALKER HOLLOW 13-36-6-23	36			4304737463	<u> </u>	State	GW	LA	<b>†</b>	<u> </u>	SWSW	ML-47970	N2525
N WALKER HOLLOW 15-36-6-23				4304737464		State	GW	<del></del>		<del>                                     </del>	SWSE	ML-47970	N2525
N WALKER HOLLOW 14-32-6-23			<del></del>	4304737478		State	GW	<b>_</b>			SESW	ML-47777	N2525
HACKING RES 11-32-8-25	4		+	4304737479	-	State	GW			-	NESW	ML-11124	N2525
HACKING RES 3-32-8-25			<del></del>	4304737480	<del> </del>	State	GW		+	-	NENW	ML-11124	N2525
HACKING RES 5-32-8-25			·	4304737481		State	GW	<del></del>			SWNW	ML-11124	N2525
HACKING RES 15-32-8-25				4304737482		State	GW			ł	SWSE	ML-11124	N2525
HACKING RES 9-32-8-25		<del></del>		4304737483	1	State	GW	1	-	-	NESE	ML-11124	N2525
HACKING RESERVOIR 7-32-8-25		1		4304737571	15885			DRL	C		SWNE	ML-11124	N2525
LILICIATIO REDER VOIR 1-34-0-23	122	10000	12201	TJUT1J1J11	12002	June	10.44		<u> </u>	<u> </u>	D 44 147	11147	1.42.22.2